

# ASSIGNMENT 1

Textbook Assignment: "Introduction," "Safety and Safety Equipment," "Reading Measuring Scales," "Tool Boxes," "Dividers," "Calipers," "Micrometers," "Rules and Tapes," and "Miscellaneous Measuring Tools," chapters 1 through 9, pages 1-1 through 9-3.

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| <p>1-1. The text for this course provides which of the following information?</p> <ol style="list-style-type: none"><li>1. Information on the use and care of selected hand tools and measuring tools</li><li>2. An explanation of the types and uses of a large number of tools</li><li>3. A practical application of a selected group of tools, safety requirements, general care, and limited repair</li><li>4. All of the above</li></ol> <p>1-2. In reference to the use and care of hand tools and measuring tools, which of the following statements is/are true?</p> <ol style="list-style-type: none"><li>1. A user must have, choose, and use the correct tools in order to do the work quickly, accurately, and safely</li><li>2. Without the proper tools and knowledge of how to use them, the user wastes time, reduces efficiency, and may face injury</li><li>3. Both 1 and 2 above</li><li>4. Using tools comes naturally to most people, and formal training is not normally needed</li></ol> <p>1-3. You are using the text for this course and need information about a specific tool or operation. What is the easiest way to find the information?</p> <ol style="list-style-type: none"><li>1. Refer to the alphabetical index at the end of the manual and turn to the pages that apply</li><li>2. Flip through the text and look for the appropriate illustrations</li><li>3. Refer to the numerical tool index at the front of the text</li><li>4. Refer to the tool color coding chart at the end of the text</li></ol> | <p>1-4. The introduction to each tool chapter in the text provides which of the following information?</p> <ol style="list-style-type: none"><li>1. How to choose and use the tools covered</li><li>2. The various types of tools available and an example of their use</li><li>3. Instructions on the care of tools and safety precautions</li><li>4. All of the above</li></ol> <p>1-5. What chapter in the text covers Safety and Safety Equipment?</p> <ol style="list-style-type: none"><li>1. One</li><li>2. Two</li><li>3. Three</li><li>4. Four</li></ol> <p>1-6. Who is the most important part of safety procedures?</p> <ol style="list-style-type: none"><li>1. Your immediate supervisor</li><li>2. The executive officer</li><li>3. The safety officer</li><li>4. You</li></ol> <p>1-7. Which of the following statements pertaining to tools is NOT true?</p> <ol style="list-style-type: none"><li>1. You should keep an inventory list in your tool box and check it after each job</li><li>2. You should use each tool only on the job for which it was designed</li><li>3. Damaged tools should be saved because they can sometimes be used for purposes other than for which they were designed</li><li>4. A worker's efficiency is often a direct result of the condition of the tools being used</li></ol> |
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1-8. Worker's are often judged by the manner in which they handle and care for their tools. Your own efficiency will be improved if you follow which of the following steps?

1. Organize your tools so that those used most frequently can be reached easily without sorting through the entire contents of the tool box
2. Always place the most expensive tools in the bottom of tool box
3. Clean your tools at the end of the week rather than after each job
4. Store your tools on high shelves where the humidity is lower

1-9. When working with power tools, you should follow all EXCEPT which of the following procedures?

1. Never operate any power equipment unless you are completely familiar with its controls and features
2. Never try to clear a jammed power tool until it is disconnected from the power source
3. Before connecting a power tool to a power source, be sure the tool switch is in the "ON" position
4. Check electrical cables and cords frequently for overheating

1-10. Safety shoes protect and prevent injury or loss of toes. Some safety shoes are designed to limit damage to your toes from falling objects. What is usually placed in such shoes for protection?

1. Nails
2. Rubber
3. Plastic
4. Steel plates

1-11. Proper eye protection is of the highest importance for all personnel. Eye protection is necessary because of which of the following hazards?

1. Infrared and ultraviolet radiation
2. Flying objects such as sparks, globules of molten metal, or chipped concrete and wood
3. Both 1 and 2 above
4. Audio vibrations

1-12. Protective helmets are made from which of the following materials?

1. Polyethylene
2. Polycarbonate
3. Both 1 and 2 above
4. Perineurium

1-13. Regular hard hats must be insulated so that personnel may be protected from voltages up to what maximum amount?

1. 2,200 volts
2. 3,000 volts
3. 5,000 volts
4. 9,000 volts

1-14. Electrical workers requiring head protection must wear safety helmets which are capable of withstanding what minimum voltage proof-test?

1. 10,000 volts
2. 20,000 volts
3. 30,000 volts
4. 40,000 volts

1-15. Personnel working with electricity are usually required to wear gloves made from which of the following materials?

1. Cloth
2. Leather
3. Nylon
4. Rubber

- 1-16. The more common types of rules and tapes are divided in which of the following ways?
1. Fractions, inches, and feet
  2. Inches, feet, and yards
  3. Feet, yards, and meters
  4. Inches, meters, and milliliters
- 1-17.  $\frac{3}{6}$  can be reduced to which of the following fractions?
1.  $\frac{1}{8}$
  2.  $\frac{1}{4}$
  3.  $\frac{1}{2}$
  4.  $\frac{2}{3}$
- 1-18. Common tapes and rules usually are NOT graduated smaller than what fraction of an inch?
1.  $\frac{1}{2}$  inch
  2.  $\frac{1}{4}$  inch
  3.  $\frac{1}{8}$  inch
  4.  $\frac{1}{16}$  inch
- 1-19. If  $\frac{1}{4}$  equals  $\frac{16}{64}$ , what does  $\frac{3}{4}$  equal in sixty fourths?
1.  $\frac{12}{64}$
  2.  $\frac{24}{64}$
  3.  $\frac{48}{64}$
  4.  $\frac{56}{64}$
- 1-20. The metric system is based upon what multiples?
1. Multiples of 10
  2. Multiples of 20
  3. Multiples of 30
  4. Multiples of 40
- 1-21. How many millimeters are in a centimeter?
1. 10 millimeters
  2. 20 millimeters
  3. 30 millimeters
  4. 40 millimeters
- 1-22. How many centimeters are in a meter?
1. 100 centimeters
  2. 200 centimeters
  3. 300 centimeters
  4. 400 centimeters
- 1-23. Tool boxes are made from which of the following materials?
1. Steel
  2. Wood
  3. Plastic
  4. All of the above
- 1-24. Larger tools are generally contained in which of the following types of tool containers?
1. Mechanic's tool box (chest type)
  2. Portable-carpenter's tool box
  3. Cantilevered-tray tool box
  4. Canvas too bag
- 1-25. Dividers are used for which of the following purposes?
1. Spreading metal parts
  2. Measuring distances between two points
  3. Scribing an arc, radius, or circle
  4. Both 2 and 3 above
- 1-26. Spring dividers are available in which of the following lengths?
1. 2 to 4 inches
  2. 2 to 6 inches
  3. 3 to 10 inches
  4. 4 to 15 inches
- 1-27. Wing-type dividers are available in which of the following lengths?
1. 6, 8, and 12-inch lengths
  2. 3, 4, and 10-inch lengths
  3. 5, 9, and 11-inch lengths
  4. 7, 9, and 13-inch lengths
- 1-28. Calipers are used for what purpose?
1. To fasten metal parts
  2. To light torches
  3. To measure diameters
  4. To make bolt threads

- 1-29. Transfer calipers are used for what purpose?
1. Threading wire through a bulkhead
  2. Holding glued parts together
  3. Weighing nuts and bolts
  4. Measuring chamfered grooves or flanges

- 1-30. What type of caliper is used for finding shaft centers or locating shoulders?
1. A slide caliper
  2. A vernier caliper
  3. A hermaphrodite caliper
  4. An outside caliper

- 1-31. Slide calipers can be used for which of the following purposes?
1. Finding shaft centers
  2. Measuring outside dimensions
  3. Measuring inside dimensions
  4. Both 2 and 3 above

- 1-32. Which of the following types of calipers contain a straight measuring rule?
1. Transfer calipers
  2. Slide calipers
  3. Hermaphrodite calipers
  4. Spring-joint calipers

- 1-33. Which of the following instruments can be used to measure distances beyond the range of calipers?
1. Trammels
  2. Pullers
  3. Planes
  4. Taps

- 1-34. To read a vernier caliper, you must be able to understand which of the following scales?
1. Steel rule
  2. Vernier
  3. Both 1 and 2 above
  4. British thermal unit

- 1-35. On a vernier caliper, the vernier scale is divided into what number of parts?

1. 10
2. 20
3. 25
4. 40

- 1-36. On a vernier caliper, what is the difference between the width of one of the 25 spaces on the vernier scale and one of the 24 spaces on the steel rule?

1. 1/1000 of an inch
2. 2/1000 of an inch
3. 3/1000 of an inch
4. 4/1000 of an inch

- 1-37. On a 24-inch or 600-mm caliper, what does .300 inch equal in metric measure?

1. 1.22 mm
2. 2.44 mm
3. 5.66 mm
4. 7.62 mm

- 1-38. Standard micrometers are designed to measure distances to what nearest accuracy?

1. .001 of an inch
2. .002 of an inch
3. .003 of an inch
4. .004 of an inch

- 1-39. Which of the following types of micrometers is/are commonly used?

1. The outside micrometer
2. The inside micrometer
3. The depth micrometer
4. All of the above

- 1-40. What is the range of an inside micrometer when used with a 1/2-inch spacer?

1. .500 of an inch
2. .200 of an inch
3. .300 of an inch
4. .400 of an inch

- 1-41. The types of micrometers commonly used are designed so that the longest movement possible between the spindle and the anvil is what distance?
1. 1 inch
  2. 2 inches
  3. 3 inches
  4. 4 Inches
- 1-42. The longest movement possible between the spindle and the anvil of a micrometer is known by which of the following terms?
1. Depth
  2. Range
  3. Height
  4. Width
- 1-43. The frames of micrometers are available up to what maximum size?
1. 10 Inches
  2. 15 inches
  3. 24 inches
  4. 46 inches
- 1-44. A 6-inch micrometer will measure work between which of the following sizes?
1. From 1 to 6 inches thick
  2. From 4 to 6 inches thick
  3. Between 1 and 6 inches thick
  4. Between 5 and 6 inches thick
- 1-45. To measure a piece of stock that is approximately 3 1/4 inches, you will need a micrometer with what range?
1. 1- to 2-inch range
  2. 2- to 3-inch range
  3. 3- to 4-inch range
  4. 4- to 5-inch range
- 1-46. What does the size of a micrometer indicate?
1. The size of the largest work it will measure
  2. The size of the smallest work it will measure
  3. The total length of the micrometer
  4. The total width of the micrometer
- 1-47. A standard micrometer screw has what number of threads per inch?
1. 10
  2. 20
  3. 30
  4. 40
- 1-48. On a standard micrometer, one complete revolution of the micrometer screw will move the spindle what distance?
1. .015 inch
  2. .025 inch
  3. .125 inch
  4. .225 inch
- 1-49. Vernier micrometers are designed to measure distances to what nearest accuracy?
1. .0001 of an inch
  2. .0010 of an inch
  3. .0100 of an inch
  4. .1000 of an inch
- 1-50. On a vernier micrometer, the ten spaces on the vernier are equivalent to what number of spaces on the thimble?
1. Five
  2. Seven
  3. Nine
  4. Twelve
- 1-51. On a metric micrometer, one revolution of the spindle advances or withdraws the screw what distance?
1. 1.5 mm
  2. 1.0 mm
  3. 0.5 mm
  4. 0.1 mm

1-52. On a metric micrometer, how many revolutions of the spindle is required to move the barrel 1 mm?

1. One
2. Two
3. Three
4. Four

1-53. In reference to micrometers in general, which of the following statements is true?

1. Micrometers should be coated with a light coat of oil to prevent rust
2. All micrometers should be kept in a single container to save storage space
3. The graduations on micrometers should be painted so they can be easily read
4. Micrometers should be stored in areas where the humidity is very high to prevent rust

1-54. Which of the following is the most common measuring tool?

1. A micrometer
2. A rule
3. A plumb bob
4. A level

1-55. Which of the following tools should be used as gages for leveling and setup work?

1. Angle plates
2. Registering speed indicators
3. V-blocks and clamps
4. Adjustable parallels

1-56. Which of the following tools should be used for grinding, milling, or drilling purposes?

1. Angle plates
2. Registering speed indicators
3. V-blocks and clamps
4. Adjustable parallels

1-57. Angle plates are used for which of the following purposes?

1. As gages for leveling and setup work
2. For clamping or holding work vertically
3. For grinding, milling, or drilling purposes
4. To count the number of revolutions of wheels

1-58. Registering speed indicators are used for which of the following purposes?

1. To count the number of revolutions of shafts
2. To regulate the flow of fluid
3. To govern the speed of vehicles
4. To register the speed of light

1-59. A magnetic base indicator assembly is attached to the work surface in what manner?

1. Bolted
2. Glued
3. Welded
4. Magnetically

1-60. Adjustable parallels consist of what number of tapered parts?

1. One
2. Two
3. Three
4. Four